Deloitte.

THE MARITIME AND PORT AUTHORITY OF SINGAPORE AND ITS SUBSIDIARY

ANNUAL FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2019

THE MARITIME AND PORT AUTHORITY OF SINGAPORE AND ITS SUBSIDIARY

ANNUAL REPORT
For the financial year ended 31 December 2019

Contents

THE MARITIME AND PORT AUTHORITY OF SINGAPORE
AND ITS SUBSIDIARY

STATEMENT BY BOARD OF MEMBERS

For the financial year ended 31 December 2019

In the opinion of the Board of Members,

(a) the consolidated financial statements of the Maritime and Port Authority of Singapore and its subsidiary (the "Authority") as set out on pages 7 to 60 are properly drawn up so as to present fairly, in all material respects, the state of affairs of the Authority as at 31 December 2019 and of the results of the business, changes in reserves and cash flows of the Authority for the financial year then ended in accordance with the provisions of the Public Sector (Governance) Act 2018 and the Maritime and Port Authority of Singapore Act (Cap. 170A) and Statutory Board Financial Reporting Standards; and

(b) at the date of this statement, there are reasonable grounds to believe that the Authority will be able to pay its debts as and when they fall due.

On behalf of the Board of Members,

Niam Chiang Meng
Chairman

Quah Ley Hoon
Chief Executive and Board Member

29 March 2020

Deloitte & Touche LLP
Unique Entity No. T08LL0721A
6 Shenton Way
OUE Downtown 2
#33-00
Singapore 068809

Tel: +65 6224 8288
Fax: +65 6538 6166
www.deloitte.com/sg

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF THE BOARD OF THE MARITIME AND PORT AUTHORITY OF SINGAPORE

Report on the Audit of the Financial Statements

Opinion

We have audited the accompanying consolidated financial statements of the Maritime and Port Authority of Singapore and its subsidiary (the "Authority") set out on pages 7 to 60, which comprise the consolidated balance sheet as at 31 December 2019, the consolidated statement of comprehensive income, consolidated statement of changes in reserves and consolidated statement of cash flows of the Authority for the year then ended, and notes to the financial statements including a summary of significant accounting policies.

In our opinion, the consolidated financial statements of the Authority are properly drawn up in accordance with the provisions of the Public Sector (Governance) Act 2018 and the Maritime and Port Authority of Singapore Act (Cap. 170A) (the "Acts") and Statutory Board Financial Reporting Standards so as to present fairly, in all material respects, the state of affairs of the Authority as at 31 December 2019 and the results, changes in reserves and cash flows of the Authority for the year ended on that date.

Basis for Opinion

We conducted our audit in accordance with Singapore Standards on Auditing ("SSAs"). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the Authority in accordance with the Accounting and Corporate Regulatory Authority *Code of Professional Conduct and Ethics for Public Accountants and Accounting Entities* ("ACRA Code") together with the ethical requirements that are relevant to our audit of the financial statements in Singapore, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the ACRA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Information Other than the Financial Statements and Auditor's Report Thereon

Management is responsible for the other information. The other information obtained at the date of this auditor's report is the Statement by Board of Members, but does not include the financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the other information and we do not and will not express any form of assurance conclusion thereon.

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF THE BOARD OF THE MARITIME AND PORT AUTHORITY OF SINGAPORE (continued)

In connection with our audit of the financial statements, our responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with the provisions of the Acts and Statutory Board Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

A statutory board is constituted based on its Acts and its dissolution requires Parliament's approval. In preparing the financial statements, management is responsible for assessing the Authority's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless there is intention to wind up the Authority or for the Authority to cease operations.

Those charged with governance are responsible for overseeing the Authority's financial reporting process.

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF THE BOARD OF THE MARITIME AND PORT AUTHORITY OF SINGAPORE (continued)

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with SSAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Authority's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Authority to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Authority to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Report on Other Legal and Regulatory Requirements

Opinion

In our opinion:

(a) the receipts, expenditure, investment of moneys and the acquisition and disposal of assets by the Authority during the year are, in all material respects, in accordance with the provisions of the Acts and the requirements of any other written law applicable to moneys of or managed by the Authority; and

(b) proper accounting and other records have been kept, including records of all assets of the Authority whether purchased, donated or otherwise.

Basis for Opinion

We conducted our audit in accordance with SSAs. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Compliance Audit* section of our report. We are independent of the Authority in accordance with the ACRA Code together with the ethical requirements that are relevant to our audit of the financial statements in Singapore, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the ACRA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on management's compliance.

Responsibilities of Management for Compliance with Legal and Regulatory Requirements

Management is responsible for ensuring that the receipts, expenditure, investment of moneys and the acquisition and disposal of assets, are in accordance with the provisions of the Acts. This responsibility includes implementing accounting and internal controls as management determines are necessary to enable compliance with the provisions of the Acts.

Deloitte.

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF THE BOARD OF THE MARITIME AND PORT AUTHORITY OF SINGAPORE (continued)

Auditor's Responsibilities for the Compliance Audit

Our responsibility is to express an opinion on management's compliance based on our audit of the financial statements. We planned and performed the compliance audit to obtain reasonable assurance about whether the receipts, expenditure, investment of moneys and the acquisition and disposal of assets, are in accordance with the provisions of the Acts.

Our compliance audit includes obtaining an understanding of the internal control relevant to the receipts, expenditure, investment of moneys and the acquisition and disposal of assets; and assessing the risks of material misstatement of the financial statements from non-compliance, if any, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Because of the inherent limitations in any accounting and internal control system, non-compliances may nevertheless occur and not be detected.

Deloitte & Touche LLP

Public Accountants and
Chartered Accountants
Singapore

29 March 2020

THE MARITIME AND PORT AUTHORITY OF SINGAPORE
AND ITS SUBSIDIARY

CONSOLIDATED BALANCE SHEET
As at 31 December 2019

	Note	**2019**	2018
		$	$
ASSETS			
Non-current assets			
Property, plant and equipment	4	**99,272,779**	92,341,275
Right-of-use assets	5	**4,312,712**	-
Capital work-in-progress	4,6	**9,481,644**	10,743,480
Financial assets	8	**614,867,828**	539,188,943
		727,934,963	642,273,698
Current assets			
Trade receivables	9	**50,215,521**	45,337,017
Deposits, prepayments and other receivables	10	**16,367,361**	15,740,866
Cash and cash equivalents	11	**866,021,715**	787,779,005
		932,604,597	848,856,888
Total assets		**1,660,539,560**	1,491,130,586
EQUITY			
Capital and reserves			
Establishment account	12	**147,375,155**	147,375,155
Equity financing account	13	**3,978,616**	3,978,616
Accumulated surplus		**1,388,790,452**	1,258,838,465
Total capital and reserves		**1,540,144,223**	1,410,192,236
LIABILITIES			
Non-current liabilities			
Employment benefits	14	**422,377**	422,377
Deferred capital grant	15	**16,403,403**	17,665,353
Lease liabilities	16	**2,115,496**	-
		18,941,276	18,087,730
Current liabilities			
Trade and other payables	17	**47,573,426**	40,932,479
Advances, deposits and unearned income	18	**13,238,104**	11,234,867
Lease liabilities	16	**2,282,953**	-
Provision for contribution to Consolidated Fund	23	**38,359,578**	10,683,274
		101,454,061	62,850,620
Total liabilities		**120,395,337**	80,938,350
Total equity and liabilities		**1,660,539,560**	1,491,130,586
Funds managed/held on behalf of others	28	7,092,603	3,696,622
Funds' net assets managed/held on behalf of others	28	(7,092,603)	(3,696,622)

The accompanying notes form an integral part of these financial statements.

THE MARITIME AND PORT AUTHORITY OF SINGAPORE
AND ITS SUBSIDIARY

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

For the financial year ended 31 December 2019

	Note	**2019**	2018
		$	$
Operating revenue			
Port dues and marine services	19	**283,222,209**	281,717,731
Shipping services	19	**6,573,119**	6,188,376
Rental income	19	**4,354,813**	4,380,075
Training	19	**540,669**	807,347
Miscellaneous revenue	19	**766,740**	377,851
		295,457,550	293,471,380
Operating expenditure			
Staff cost	20	**86,606,893**	88,369,602
Depreciation of property, plant and equipment	4	**18,654,348**	18,349,814
Depreciation of right-of-use assets	5	**2,494,198**	-
Hire of marine craft and sea garbage services		**11,642,075**	12,101,870
Fuel, repairs and maintenance		**18,062,708**	16,424,762
Other operating expenses	21	**71,039,714**	73,774,577
		208,499,936	209,020,625
Operating surplus		**86,957,614**	84,450,755
Net other operating surplus/(deficit)	22	**74,525,727**	(23,118,815)
Surplus from operations		**161,483,341**	61,331,940
Amortisation of deferred capital grant	15	**1,261,950**	1,449,351
Surplus before contribution to Consolidated Fund		**162,745,291**	62,781,291
Contribution to Consolidated Fund	23	**(27,676,304)**	(10,683,274)
Surplus for the year, representing total comprehensive income for the year		**135,068,987**	52,098,017

There is no other comprehensive income for the financial years ended 31 December 2019 and 2018.

The accompanying notes form an integral part of these financial statements.

THE MARITIME AND PORT AUTHORITY OF SINGAPORE
AND ITS SUBSIDIARY

CONSOLIDATED STATEMENT OF CHANGES IN RESERVES

For the financial year ended 31 December 2019

	Establishment account $	Equity financing account $	Accumulated surplus $	Total $
2019				
Beginning of financial year	**147,375,155**	**3,978,616**	**1,258,838,465**	**1,410,192,236**
Total comprehensive income for the year				
Surplus for the year	-	-	135,068,987	135,068,987
Dividends paid, representing total transaction with owners, recognised directly in equity	-	-	(5,117,000)	(5,117,000)
End of financial year	**147,375,155**	**3,978,616**	**1,388,790,452**	**1,540,144,223**
2018				
Beginning of financial year	**147,375,155**	**3,978,616**	**1,221,305,448**	**1,372,659,219**
Total comprehensive income for the year				
Surplus for the year	-	-	52,098,017	52,098,017
Dividends paid, representing total transaction with owners, recognised directly in equity	-	-	(14,565,000)	(14,565,000)
End of financial year	**147,375,155**	**3,978,616**	**1,258,838,465**	**1,410,192,236**

The accompanying notes form an integral part of these financial statements.

THE MARITIME AND PORT AUTHORITY OF SINGAPORE
AND ITS SUBSIDIARY

CONSOLIDATED STATEMENT OF CASH FLOWS

For the financial year ended 31 December 2019

	Note	2019 $	2018 $
Cash flows from operating activities			
Surplus before contribution to Consolidated Fund		**162,745,291**	62,781,291
Adjustments for:			
- Depreciation of property, plant and equipment	4	**18,654,348**	18,349,814
- Depreciation of right-of-use assets	5	**2,494,198**	-
- Net provision/(reversal) of loss allowance for trade receivables	9	**51,608**	(206,872)
- Provision for employee benefits	14	**16,215**	11,408
- Amortisation of deferred capital grant	15	**(1,261,950)**	(1,449,351)
- Interest on lease liabilities	16	**181,992**	-
- Net investment (gain)/loss from funds with fund managers	22	**(70,824,010)**	24,613,616
- Gain from sale of equity managed internally		**(13,873)**	-
- Interest income on bank deposits	22	**(3,691,038)**	(2,201,017)
- Net loss on disposal of property, plant and equipment	22	**198,228**	557,394
		108,551,009	102,456,283
Changes in working capital:			
- Trade receivables		**(4,930,113)**	4,012,287
- Deposits, prepayments and other receivables		**(3,121,063)**	517,607
- Trade and other payables		**5,587,692**	8,123,173
- Advances, deposits and unearned income		**2,003,237**	492,747
Cash generated from operations		**108,090,762**	115,602,097
Payment of employee benefits	14	**(16,215)**	(11,408)
Contribution paid to Consolidated Fund	23	**-**	(24,159,334)
Net cash from operating activities		**108,074,547**	91,431,355
Cash flows from investing activities			
Withdrawal/(Placement) of industry funds with Accountant-General's Department		**33,210,583**	(70,531,949)
Proceeds from sale of property, plant and equipment		**6,742**	37,596
Purchases of property, plant and equipment and capital work-in-progress	4	**(24,528,986)**	(26,063,718)
Proceeds from withdrawal of funds from custodian		**43,901,171**	-
Proceeds from sale of equity managed internally		**13,873**	-
Interest received		**2,534,495**	2,044,966
Net cash from /(used in) investing activities		**55,137,878**	(94,513,105)
Cash flows from financing activities			
Dividends paid		**(5,117,000)**	(14,565,000)
Repayment of lease liability	16	**(2,590,453)**	-
Net cash used in financing activities		**(7,707,453)**	(14,565,000)
Net increase/(decrease) in cash and cash equivalents		**155,504,972**	(17,646,750)
Cash and cash equivalents at beginning of financial year		**95,126,739**	112,773,489
Cash and cash equivalents at end of financial year	11	**250,631,711**	95,126,739

The accompanying notes form an integral part of these financial statements.

These notes form an integral part of and should be read in conjunction with the accompanying financial statements.

1. General information

The Maritime and Port Authority of Singapore ("MPA") under the purview of Ministry of Transport, was established on 2 February 1996 under the Maritime and Port Authority of Singapore Act (Cap. 170A) with the merger of the following organisations:

- The National Maritime Board (NMB);
- The Marine Department (MD); and
- The regulatory departments of the Port of Singapore Authority (PSA).

MPA is domiciled in Singapore and the address of its registered office is 460 Alexandra Road, 19th Storey, PSA Building, Singapore 119963.

The principal activities of MPA include the control of vessel movements to ensure a safe and secure port, and also the regulation of the port and marine services and facilities. MPA is the champion agency to develop and promote Singapore as an International Maritime Centre. MPA also represents Singapore regionally and internationally to safeguard Singapore's maritime interests.

The principal activities of its subsidiary and associated company are set out in Note 7.

2. Significant accounting policies

2.1 Basis of preparation

These financial statements have been prepared in accordance with the provisions of the Public Sector (Governance) Act 2018 and the Maritime and Port Authority of Singapore Act (Cap. 170A) and Statutory Board Financial Reporting Standards ("SB-FRS").

The financial statements have been prepared under the historical cost convention except as disclosed in the accounting policies below.

The preparation of financial statements in conformity with SB-FRS requires management to exercise its judgement in the process of applying the Authority's accounting policies. It also requires the use of certain critical accounting estimates and assumptions. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in Note 3.

2. Significant accounting policies (continued)

2.1 Basis of preparation (continued)

Interpretations and amendments to published Standards effective in 2019

On 1 January 2019, the Authority adopted the new or amended SB-FRS and Interpretations of SB-FRS ("INT SB-FRS") that are mandatory for application for the financial year. Changes to the Authority's accounting policies have been made as required, in accordance with the transitional provisions in the respective SB-FRS and INT SB-FRS.

The adoption of these new or amended SB-FRS and INT SB-FRS did not result in substantial changes to the Authority's accounting policies and had no material effect on the amounts reported for the current or prior financial years except as disclosed below.

SB-FRS 116 - Leases

SB-FRS 116 introduces new or amended requirements with respect to lease accounting. It introduces significant changes to lessee accounting by removing the distinction between operating and finance lease and requiring the recognition of a right-of-use asset and a lease liability at commencement for all leases, except for short-term leases and leases of low value assets when such recognition exemptions are adopted. In contrast to lessee accounting, the requirements for lessor accounting have remained largely unchanged. The impact of the adoption of SB-FRS 116 on the Authority's consolidated financial statements is described below.

The date of initial application of SB-FRS 116 for the Authority is 1 January 2019.

The Authority has applied SB-FRS 116 using the modified retrospective approach. Comparatives will therefore continue to be presented under SB-FRS 17 and INT SB-FRS 104.

(a) <u>Impact of the new definition of a lease</u>

The Authority has made use of the practical expedient available on transition to SB-FRS 116 not to reassess whether a contract is or contains a lease. Accordingly, the definition of a lease in accordance with SB-FRS 17 and SB-FRS INT 104 will continue to be applied to those leases entered or changed before 1 January 2019.

The change in definition of a lease mainly relates to the concept of control. SB-FRS 116 determines whether a contract contains a lease on the basis of whether the customer has the right to control the use of an identified asset for a period of time in exchange for consideration. This is in contrast to the focus on 'risk and rewards' in SB-FRS 17 and SB-FRS INT104.

2. Significant accounting policies (continued)

2.1 Basis of preparation (continued)

Interpretations and amendments to published Standards effective in 2019 (continued)

SB-FRS 116 – Leases (continued)

(a) Impact of the new definition of a lease

The Authority applies the definition of a lease and related guidance set out in SB-FRS 116 to all lease contracts entered into or modified on or after 1 January 2019 (whether it is a lessor or a lessee in the lease contract). The new definition in SB-FRS 116 does not significantly change the scope of contracts that meet the definition of a lease for the Authority.

(b) Impact on lessee accounting

Former operating leases

SB-FRS 116 changes how the Authority accounts for leases previously classified as operating lease under SB-FRS 17, which were off-balance-sheet.

Applying SB-FRS 116, for all leases, the Authority:

(i) Recognises right-of-use assets and lease liabilities in the statements of financial position, initially measured at the present value of the remaining lease payments, with the right-of-use asset adjusted by the amount of any prepaid or accrued lease payments in accordance with SB-FRS 116:C8(b)(ii);

(ii) Recognises depreciation of right-of-use assets and interest on lease liabilities in the consolidated statement of comprehensive income;

(iii) Separates the total amount of cash paid into principal portion (presented within financing activities) and interest (presented within operating activities) in the consolidated statement of cash flows.

Lease incentives (e.g. free rent periods) are recognised as part of the measurement of the right-of-use assets and lease liabilities whereas under SB-FRS 17 they resulted in the recognition of a lease incentive liability, amortised as a reduction of rental expense on a straight-line basis.

Under SB-FRS 116, right-of-use assets are tested for impairment in accordance with SB-FRS 36 *Impairment of Assets.*

2. Significant accounting policies (continued)

2.1 Basis of preparation (continued)

Interpretations and amendments to published Standards effective in 2019 (continued)

SB-FRS 116 – Leases (continued)

(b) Impact on lessee accounting (continued)

For short-term leases (lease term of 12 months or less) and leases of low-value assets, the Authority has opted to recognise a lease expense on a straight line basis as permitted by SB-FRS 116. This expense is presented within other operating expenses in the consolidated statement of comprehensive income.

The Authority has used the following practical expedients when applying the modified retrospective approach to leases previously classified as operating lease applying SB-FRS 17.

- The Authority has applied a single discount rate to a portfolio of leases with reasonably similar characteristics.
- The Authority has elected not to recognise right-of-use assets and lease liabilities to leases for which the lease term ends within 12 months of the date of initial application.
- The Authority has excluded initial direct cost from the measurement of the right-of-use asset at the date of initial application.
- The Authority has used hindsight when determining the lease term when the contract contains options to extend or terminate the lease.

(c) Impact on lessor accounting

SB-FRS 116 does not change substantially how a lessor accounts for leases. Under SB-FRS 116, a lessor continues to classify leases as either finance lease or operating leases and account for those two types of leases differently.

However, SB-FRS 116 has changed and expanded the disclosures required, in particular regarding how a lessor manages the risks arising from its residual interest in leased assets.

2. Significant accounting policies (continued)

2.1 Basis of preparation (continued)

Interpretations and amendments to published Standards effective in 2019 (continued)

SB-FRS 116 – Leases (continued)

(d) Financial impact of initial application of SB-FRS 116

The weighted average lessee's incremental borrowing rate applied to the lease liabilities recognised in the consolidated balance sheet on 1 January 2019 is 3.2%.

The following table shows the operating lease commitments disclosed applying SB-FRS 17 at 31 December 2018, discounted using the incremental borrowing rate at the date of initial application and the lease liabilities recognised in the consolidated balance sheet at the date of initial application.

	2019 $
Operating lease commitments at 31 December 2018 (note 25)	17,180,267
Less: Short-term leases and leases of low value assets	(13,774,492)
Less: Effect of discounting the above amounts	(392,924)
Add: Present value of the lease payments not previously included in operating lease commitments	3,610,778
Lease liabilities recognised at 1 January 2019	6,623,629

Right-of-use assets were measured at the amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognised in the consolidated balance sheet immediately before the date of initial application. Consequently, right-of-use assets of $6,623,629 were recognised on 1 January 2019. There was no impact on prepayments.

As at the date of authorisation of these financial statements, management anticipates that the adoption of SB-FRS, INT SB-FRSs and amendments to SB-FRSs that were issued but not yet effective will not have a material impact on the financial statements in the period of their adoption.

2. Significant accounting policies (continued)

2.2 Revenue recognition

Revenue is measured based on the consideration specified in a contract with a customer and excludes amounts collected on behalf of third parties. The Authority recognises revenue when it transfers control of a product or service to a customer. Revenue comprises the fair value of the consideration received or receivable for the rendering of services in the ordinary course of the Authority's activities. Revenue is presented net of goods and services tax, rebates and discounts.

The Authority recognises revenue when the amount of revenue and related cost can be reliably measured, it is probable that the collectability of the related receivables is reasonably assured and when the specific criteria for each of the Authority's activities are met as follows:

(a) Port dues and marine services

Dues, licence and permit fees, and agency fee are recognised over time as and when services are performed. Any other marine services are recognised as and when the services are completed.

(b) Training revenue

Training revenue are recognised over time as and when services are performed.

(c) Shipping services

Shipping services, which comprise registration fees and seaman engagement and discharge fees, are recognised as and when services are completed. Annual payment scheme, such as annual administrative fee, will be recognised over time as and when services are performed.

(d) Rental income

Rental income from operating leases (net of any incentives given to the lessees) is recognised on a straight-line basis over lease term.

(e) Interest income

Interest income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable.

(f) Dividend income

Dividend income is recognised when the right to receive payment is established.

2.3 Government grants

Government grants received for the purchase or the construction of depreciable assets are accounted for as deferred capital grants. The deferred capital grants are amortised and charged to income or expenditure over the period necessary to match the annual depreciation charge of these assets or when the assets are disposed or written off. Where the grants relate to an expense item, they are recognised in income or expenditure over the periods necessary to match them on a systematic basis, to the costs, which they are intended to compensate.

2.4 Group accounting

(a) Subsidiary

A subsidiary is an entity over which the Authority has control. The Authority controls an entity when the Authority is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. A subsidiary is fully consolidated from the date on which control is transferred to MPA. It is deconsolidated from the date on that control ceases.

(b) Associated company

Associated company is an entity over which the Authority has significant influence, but not control, generally accompanied by a shareholding giving rise to voting rights of 20% and above but not exceeding 50%.

Investments in associated company is accounted for in the consolidated financial statements using the equity method of accounting less impairment losses, if any.

To the extent MPA's associated company is limited by guarantee and it does not share in their profits or losses, MPA records its contributions to associated company as grants in the consolidated statement of comprehensive income.

2.5 Property, plant and equipment

(a) Measurement

Property, plant and equipment are initially recognised at cost and subsequently carried at cost less accumulated depreciation and accumulated impairment losses.

The cost of an item of property, plant and equipment initially recognised includes its purchase price and any cost that is directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management.

The cost of a self-constructed asset includes the cost of materials and direct labour, any other costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management, and the cost of dismantling and removing the items and restoring the site on which they are located. Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Assets previously from the former National Maritime Board, the Marine Department and the regulatory departments of the Port of Singapore Authority were taken in at their transacted cost.

Property, plant and equipment acquired and funded under Government grants are capitalised and depreciated over their useful lives. The related accretion of deferred capital grants is matched against the depreciation (please refer to Note 2.3).

2. Significant accounting policies (continued)

2.5 Property, plant and equipment (continued)

(b) Depreciation

Depreciation on property, plant and equipment is calculated using the straight-line method to allocate their depreciable amounts over their estimated useful lives as follows:

	Useful lives
Leasehold land	Over the remaining lease periods ranging from 4 to 59 years
Building structures	Over the lease periods ranging from 3 to 28 years
Wharves, hard-standing and roads	Over the lease periods ranging from 3 to 25 years
Renovation	8 years
Plant, machinery and equipment	5 to 15 years
Vehicles	10 years
Computers	5 years
Furniture and fittings	8 years
Floating crafts	8 or 15 years

The residual values, estimated useful lives and depreciation method of property, plant and equipment are reviewed, and adjusted as appropriate, at each balance sheet date. The effects of any revision are recognised in income or expenditure when the changes arise.

(c) Subsequent expenditure

Subsequent expenditure relating to property, plant and equipment that has already been recognised is added to the carrying amount of the asset only when it is probable that future economic benefits associated with the item will flow to the Authority and the cost of the item can be measured reliably. All other repair and maintenance expenses are recognised in income or expenditure when incurred.

(d) Disposal

On disposal of an item of property, plant and equipment, the difference between the disposal proceeds and its carrying amount is recognised in income or expenditure within “Net other operating surplus”.

2. Significant accounting policies (continued)

2.6 Capital work-in-progress

Capital work-in-progress is stated at cost. Expenditure relating to the capital work-in-progress is capitalised when incurred. No depreciation is provided until the capital work-in-progress is completed and the related property, plant and equipment are available for use.

2.7 Impairment of non-financial assets

Property, plant and equipment
Right-of-use assets
Capital work-in-progress
Investments in subsidiary and associated company

Property, plant and equipment, right-of use assets, capital work-in-progress and investments in subsidiary and associated company are tested for impairment whenever there is any objective evidence or indication that these assets may be impaired.

For the purpose of impairment testing, the recoverable amount (i.e. the higher of the fair value less cost to sell and the value-in-use) is determined on an individual asset basis unless the asset does not generate cash inflows that are largely independent of those from other assets. If this is the case, the recoverable amount is determined for the CGU to which the asset belongs.

If the recoverable amount of the asset (or CGU) is estimated to be less than its carrying amount, the carrying amount of the asset (or CGU) is reduced to its recoverable amount.

The difference between the carrying amount and recoverable amount is recognised as an impairment loss in income or expenditure.

An impairment loss for an asset other than goodwill is reversed only if, there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognised. The carrying amount of this asset is increased to its revised recoverable amount, provided that this amount does not exceed the carrying amount that would have been determined (net of any accumulated amortisation or depreciation) had no impairment loss been recognised for the asset in prior years. A reversal of impairment loss for an asset other than goodwill is recognised in income or expenditure.

2. Significant accounting policies (continued)

2.8 Financial assets

(a) Classification

The Authority classifies its financial assets in the following categories: amortised cost and fair value through profit or loss ("FVTPL") under SB-FRS 109. The classification depends on the nature of the asset and the purpose for which the assets were acquired. The Authority determines the classification of its financial assets at initial recognition, based on SB-FRS 109's Business Model and Contractual Cash Flows tests.

(i) Financial Assets held at Amortised Cost

Financial assets held at Amortised Cost comprises mainly non-derivative cash and bank balances and trade and other receivables with fixed or determinable payments that are not quoted in an active market. They are presented as current assets except for those expected to be realised later than 12 months after the balance sheet date which are presented as non-current assets. These financial assets are presented as "trade receivables" (Note 9), "other receivables" (Note 10) and "cash and cash equivalents" (Note 11) on the balance sheet.

(ii) Financial assets held at Fair Value through Profit or Loss ("FVTPL")

Financial assets held at FVTPL are non-derivatives that are either classified or designated in this category. They are presented as non-current assets unless the investment matures or the Authority intends to dispose of the assets within 12 months after the balance sheet date.

The Authority's investments in equity and debt securities, including equity and debt securities placed by fund managers, where investment performance is evaluated on a fair value (total return) basis, are classified as FVTPL financial assets.

(b) Recognition and derecognition

Regular way purchases and sales of financial assets are recognised on trade-date - the date on which the Authority commits to purchase or sell the asset.

Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or have been transferred and the Authority has transferred substantially all risks and rewards of ownership. On disposal of a financial asset, the difference between the carrying amount and the sale proceeds is recognised in income or expenditure. Any amount previously recognised in other comprehensive income relating to that asset is reclassified to income or expenditure.

2. Significant accounting policies (continued)

2.8 Financial assets (continued)

(c) Initial measurement

Except for trade receivables measured at transaction price, at initial recognition, financial assets are measured at its fair value plus or minus, in the case of a financial asset or financial liability not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition or issue of the financial asset. Financial assets held at FVTPL are recognised at fair value.

(d) Subsequent measurement

FVTPL financial assets are subsequently carried at fair value. Trade and other receivables are subsequently carried at amortised cost using the effective interest method.

Interest and dividend income on FVTPL financial assets, and changes in fair values of FVTPL debt and equity securities are recognised in income or expenditure.

(e) Impairment

The Authority recognises a loss allowance for expected credit losses ("ECL") on trade and other receivables. The amount of expected credit losses is updated at each reporting date to reflect changes in credit risk since initial recognition of the respective financial instrument.

The Authority recognises lifetime ECL for trade receivables. The expected credit losses on these financial assets are estimated using a provision matrix based on the Authority's historical credit loss experience, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of both the current as well as the forecast direction of conditions at the reporting date, including time value of money where appropriate.

For all other financial instruments, the Authority recognises lifetime ECL when there has been a significant increase in credit risk since initial recognition. If, on the other hand, the credit risk on the financial instrument has not increased significantly since initial recognition, the Authority measures the loss allowance for that financial instrument at an amount equal to 12-month ECL. The assessment of whether lifetime ECL should be recognised is based on significant increases in the likelihood or risk of a default occurring since initial recognition instead of on evidence of a financial asset being credit-impaired at the reporting date or an actual default occurring.

2. Significant accounting policies (continued)

2.8 Financial assets (continued)

(e) Impairment (continued)

Significant increase in credit risk

In assessing whether the credit risk on a financial instrument has increased significantly since initial recognition, the Authority compares the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition. In making this assessment, the Authority considers historical loss rates for each category of customers and adjusts to reflect current and forward-looking macroeconomic factors affecting the ability of the customers to settle the receivables. The Authority has identified the credit default risk for logistics and transportation industry to be the most relevant factors, and accordingly adjusts the historical loss rates based on expected changes in these factors.

The Authority presumes that the credit risk on a financial asset has increased significantly since initial recognition when contractual payments are more than 30 days past due, unless the Authority has reasonable and supportable information that demonstrates otherwise.

The Authority assumes that the credit risk on a financial instrument has not increased significantly since initial recognition if the financial instrument is determined to have low credit risk at the reporting date. A financial instrument is determined to have low credit risk if i) the financial instrument has a low risk of default, ii) the borrower has a strong capacity to meet its contractual cash flow obligations in the near term and iii) adverse changes in economic and business conditions in the longer term may, but will not necessarily, reduce the ability of the borrower to fulfil its contractual cash flow obligations.

The Authority regularly monitors the effectiveness of the criteria used to identify whether there has been a significant increase in credit risk and revises them as appropriate to ensure that the criteria are capable of identifying significant increase in credit risk before the amount becomes past due.

Definition of default

The Authority considers that default has occurred when a financial asset is more than 90 days past due unless the Authority has reasonable and supportable information to demonstrate that a more lagging default criterion is more appropriate.

2. Significant accounting policies (continued)

2.8 Financial assets (continued)

(e) Impairment (continued)

Credit-impaired financial assets

A financial asset is credit-impaired when one or more events that have a detrimental impact on the estimated future cash flows of that financial asset have occurred.

Write-off policy

The Authority writes off a financial asset when there is information indicating that the counterparty is in severe financial difficulty and there is no realistic prospect of recovery, e.g. when the counterparty has been placed under liquidation or has entered into bankruptcy proceedings, or in the case of trade receivables, when the chances of recovery are remote. Financial assets written off may still be subject to enforcement activities under the Authority's recovery procedures, taking into account legal advice where appropriate. Any recoveries made are recognised in income or expenditure.

Measurement and recognition of expected credit losses

For financial assets, the expected credit loss is estimated as the difference between all contractual cash flows that are due to the Authority in accordance with the contract and all the cash flows that the Authority expects to receive, discounted at the original effective interest rate.

If the Authority has measured the loss allowance for a financial instrument at an amount equal to lifetime ECL in the previous reporting period, but determines at the current reporting date that the conditions for lifetime ECL are no longer met, the Authority measures the loss allowance at an amount equal to 12-month ECL at the current reporting date.

2.9 Offsetting financial instruments

Financial assets and liabilities are offset and the net amount reported in the balance sheet when there is a legally enforceable right to offset and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously.

2. Significant accounting policies (continued)

2.10 Trade and other payables

Trade and other payables represent liabilities for goods and services provided to the Authority prior to the end of financial year which are unpaid. They are classified as current liabilities if payment is due within one year or less (or in the normal operating cycle of the business if longer). Otherwise, they are presented as non-current liabilities.

Trade and other payables are initially recognised at fair value, and subsequently carried at amortised cost using the effective interest method.

2.11 Derivative financial instruments

The Authority engages external fund managers to manage some of its surplus funds. The Authority is exposed primarily to the financial risks of foreign exchange and interest rate fluctuations on debt and equity securities and cash and cash equivalents placed by the fund managers. The fund managers also hold derivative financial instruments to manage these risks. The use of hedging instruments is governed by the Authority's investment mandate which provides guidelines on the use of financial instruments consistent with the Authority's risk management strategy.

A derivative financial instrument is initially recognised at its fair value on the date the contract is entered into and is subsequently carried at its fair value. Changes in fair value are recognised in income or expenditure.

2.12 Fair value estimation of financial assets and liabilities

The fair values of financial instruments traded in active markets (such as exchange-traded and over-the-counter securities and derivatives) are based on quoted market prices at the balance sheet date. The quoted market prices used for financial assets are the current bid prices; the appropriate quoted market prices for financial liabilities are the current asking prices.

The fair values of financial instruments that are not traded in an active market are determined by using valuation techniques. The Authority uses a variety of methods and makes assumptions based on market conditions that are existing at each balance sheet date. Where appropriate, quoted market prices or dealer quotes for similar instruments are used. Valuation techniques, such as discounted cash flow analysis, are also used to determine the fair values of the financial instruments.

The fair values of current financial assets and liabilities carried at amortised cost approximate their carrying amounts.

2. Significant accounting policies (continued)

2.13 Leases

(a) Leases (Before 1 January 2019)

(i) The Authority as lessee

Lessee – operating leases

Leases where substantially all risks and rewards incidental to ownership are retained by the lessors are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessors) are recognised in income or expenditure on a straight-line basis over the period of the lease.

Contingent rents are recognised as an expense in income or expenditure when incurred.

(ii) The Authority as lessor

Lessor - Operating leases

Leases of leasehold land where the Authority retains substantially all risks and rewards incidental to ownership are classified as operating leases. Rental income from operating leases (net of any incentives given to the lessees) is recognised in income or expenditure on a straight-line basis over the lease term.

Initial direct costs incurred by the Authority in negotiating and arranging operating leases are added to the carrying amount of the leased assets and recognised as an expense in income or expenditure over the lease term on the same basis as the lease income.

Contingent rents are recognised as income in income or expenditure when earned.

2. Significant accounting policies (continued)

2.13 Leases (continued)

(b) Leases (From 1 January 2019)

(i) The Authority as lessee

The Authority assess whether a contract is or contains a lease, at inception of the contract. The Authority recognises a right-of-use asset and a corresponding lease liability with respect to all lease arrangements in which it is the lessee, except for short-term lease (defined as leases with a lease term of 12 months or less) and leases of low value assets. For these leases, the Authority recognises the lease payments as an operating expense on a straight-line basis over the lease term of the lease unless another systematic basis is more representative of the time pattern in which economic benefits from the leased assets are consumed.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted by using the rate implicit in the lease. If this rate cannot be readily determined, the Authority uses the incremental borrowing rate specific to the leasee.

Lease payments included in the measurement of the lease liability comprise:

- fixed lease payments (including in-substance fixed payments), less any lease incentives;
- variable lease payments that depend on an index or rate, initially measured using the index or rate at the commencement date;
- the amount expected to be payable by the lessee under residual value guarantees;
- the exercise price of purchase options, if the lessee is reasonably certain to exercise the options; and
- payments of penalties for terminating the lease, if the lease term reflects the exercise of an option to terminate the lease.

The lease liability is presented as a separate line in the consolidated balance sheet.

2. Significant accounting policies (continued)

2.13 Leases (continued)

(b) Leases (From 1 January 2019) (continued)

(i) *The Authority as lessee* (continued)

The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability (using the effective interest method) and by reducing the carrying amount to reflect the lease payments made.

The Authority remeasures the lease liability (and makes a corresponding adjustment to the related right-of-use asset) whenever:

- the lease term has changed or there is significant event or change in circumstances resulting in a change in the assessment of exercise of a purchase option, in which case the lease liability is remeasured by discounting the revised lease payments using a revised discount rate;

- the lease payments change due to changes in an index or rate or a change in expected payment under a guaranteed residual value, in which cases the lease liability is remeasured by discounting the revised lease payments using the initial discount rate (unless the lease payments change is due to a change in a floating interest rate, in which case a revised discount rate is used); or

- a lease contract is modified and the lease modification is not accounted for as a separate lease, in which case the lease liability is remeasured by discounting the revised lease payments using a revised discount rate at the effective date of the modification.

The right-of-use assets comprise the initial measurement of the corresponding lease liability, lease payments made at or before the commencement day, less any lease incentives received and any initial direct costs. They are subsequently measured at cost less accumulated depreciation and impairment losses.

2. Significant accounting policies (continued)

2.13 Leases (continued)

(b) Leases (From 1 January 2019) (continued)

(i) *The Authority as lessee* (continued)

Whenever the Authority incurs an obligation for costs to dismantle and remove a leased asset, restore the site on which it is located or restore the underlying asset to the condition required by the terms and conditions of the lease, a provision is recognised and measured under SB-FRS 37. To the extent that the costs relate to a right-of-use asset, the costs are included in the related right-of-use asset.

Right-of-use assets are depreciated over the shorter period of lease term and useful life of the underlying asset. If a lease transfers ownership of the underlying asset or the cost of the right-of-use asset reflects that the Authority expects to exercise a purchase option, the related right-of-use asset is depreciated over the useful life of the underlying asset. The depreciation starts at the commencement date of the lease.

The right-of-use assets are presented as a separate line in the consolidated balance sheet.

The Authority applies SB-FRS 36 to determine whether a right-of-use asset is impaired and accounts for any identified impairment loss as described in Note 2.7.

Variable rents that do not depend on an index or rate are not included in the measurement of the lease liability and the right-of-use asset. The related payments are recognised as an expense in the period in which the event or condition that triggers those payments occurs and are included in the line “Other operating expenses” in the consolidated statement of comprehensive income.

As a practical expedient, SB-FRS 116 permits a lessee not to separate non-lease components, and instead account for any lease and associated non-lease components as a single arrangement. The Authority has not used this practical expedient. For a contract that contains a lease component and one or more additional lease or non-lease components, the Authority allocates the consideration in the contract to each lease component on the basis of the relative stand-alone price of the lease component and the aggregate stand-alone price of the non-lease components.

2. Significant accounting policies (continued)

2.13 Leases (continued)

(b) Leases (From 1 January 2019) (continued)

(ii) The Authority as lessor

The Authority enters into lease agreements as a lessor with respect to rental space and buildings.

Leases for which the Authority is a lessor are classified as finance or operating lease. Whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee, the contract is classified as a finance lease. All other leases are classified as operating lease.

Rental income from operating leases is recognised on a straight-line basis over the term of the relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognised on a straight-line basis over the leased term.

When a contract includes lease and non-lease components, the Authority applies SB-FRS 15 to allocate the consideration under the contract to each component.

2.14 Provisions

A provision is recognised when the Authority has a present legal or constructive obligation as a result of past events, it is more likely than not that an outflow of resources will be required to settle the obligation and the amount can be reliably estimated.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. Where a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows.

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, the receivable is recognised as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

2. Significant accounting policies (continued)

2.15 Employee compensation

Employment benefits are recognised as an expense, unless the cost qualifies to be capitalised as an asset.

(a) Defined contribution plans

Defined contribution plans are post-employment benefit plans under which the Authority pays fixed contributions into separate entities such as the Central Provident Fund on a mandatory, contractual or voluntary basis. The Authority has no further payment obligations once the contributions have been paid.

(b) Pension benefits

Provision for pensions is made for the payment of retirement benefits to pensionable officers transferred to the Authority on 2 February 1996.

The cost of pension benefit due to pensionable officers is determined based on the estimated present value of the future cash outflows to be made in respect of services provided by these pensionable officers up to the balance sheet date.

(c) Employee leave entitlement

Employee entitlements to annual leave are recognised when they accrue to employees. A provision is made for the estimated liability for annual leave as a result of services rendered by employees up to the balance sheet date.

2.16 Currency translation

(a) Functional and presentation currency

The financial statements are presented in Singapore Dollars, which is the functional currency of the Authority.

2. Significant accounting policies (continued)

2.16 Currency translation (continued)

(b) Transactions and balances

Transactions in a currency other than Singapore Dollar ("foreign currency") are translated into Singapore Dollars using the exchange rates at the dates of the transactions. Currency exchange differences resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies at the closing rates at the balance sheet date are recognised in income or expenditure. Non-monetary items measured at fair values in foreign currencies are translated using the exchange rates at the date when the fair values are determined. Currency translation differences on these items are included in income or expenditure.

2.17 Cash and cash equivalents

For the purpose of presentation in the consolidated statement of cash flows, cash and cash equivalents include cash on hand, deposits with financial institutions, commercial papers, short-term bills and notes which are readily convertible to cash and are subject to an insignificant risk of change in value, and bank overdrafts, except those which are managed by the fund managers or which are placed under the Statutory Board Approved Funds with the Accountant-General's Department. Bank overdrafts are presented as current borrowings on the consolidated balance sheet.

2.18 Funds managed/held on behalf of others

Funds are set up to account for contributions received from external sources for specific purposes.

The assets and liabilities of funds - Singapore Stranded Seafarers' Fund, and agency funds held in trust for Ministry of Transport are presented as a line item at the bottom of the consolidated balance sheet of the financial statements as prescribed by SB-FRS Guidance Note 3 *Accounting and Disclosures for Trust Funds*. Income or expenditure relating to these funds are accounted for directly in these funds. Details of income, expenditure, assets and liabilities are disclosed in Note 28 to the financial statements.

3. Critical accounting estimates, assumptions and judgements

Estimates, assumptions and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

3.1 Critical accounting estimates and assumptions

Useful lives of property, plant and equipment

The Authority reviews the estimated useful lives of property, plant and equipment regularly, in accordance with the accounting policy in Note 2.5, in order to determine the amount of depreciation expense to be recorded for each financial year. Changes in the expected level of use of the assets and the Authority's historical experience with similar assets after taking into account anticipated technological changes could impact the economic useful lives and the residual values of the assets, and therefore, future depreciation charges could be revised. Any changes in the economic useful lives could impact the depreciation charges and consequently affect the Authority's results. Refer to Note 4 for the carrying value of property, plant and equipment at the balance sheet date.

3.2 Critical judgements in applying the entity's accounting policies

Accounting for investments in and contributions to associated company

MPA has determined that it has significant influence over its associated company based on the voting rights of 20% and above but not exceeding 50%, held by its representatives at the board of directors of the associated company. As the associated company are incorporated as companies limited by guarantee and MPA does not share in their profits or losses, MPA has recorded the contributions of $5,171,945 (2018: $10,507,512) made to the associated company as grant expenditure in the consolidated statement of comprehensive income.

4. Property, plant and equipment

	Leasehold land	Building structures	Wharves, hard-standing and roads	Renovation	Plant, machinery and equipment	Vehicles	Computers	Furniture and fittings	Floating crafts	Capital work-in-progress	Total
	$	$	$	$	$	$	$	$	$	$	$
2019											
Cost											
Beginning of financial year	8,319,830	60,947,764	120,378,140	12,500,592	14,611,031	669,276	85,761,882	3,145,626	9,867,425	10,743,480	326,945,046
Additions	-	-	-	2,764,150	1,931,386	-	14,323,192	579,581	-	4,930,677	24,528,986
Transfers	131,370	(3,221,191)	-	3,340,437	1,182,089	-	4,765,608	17,150	(22,950)	(6,192,513)	-
Disposals/write-off	(1,910)	(40,470)	-	(449,344)	(1,276,678)	-	(2,292,900)	(180,213)	(75,449)	-	(4,316,964)
End of financial year	8,449,290	57,686,103	120,378,140	18,155,835	16,447,828	669,276	102,557,782	3,562,144	9,769,026	9,481,644	347,157,068
Accumulated depreciation											
Beginning of financial year	3,900,932	39,953,471	78,420,451	10,632,447	11,444,470	213,407	70,298,021	1,599,822	7,397,270	-	223,860,291
Depreciation charge	351,651	1,592,307	6,538,221	960,543	922,130	66,928	7,610,492	347,058	265,018	-	18,654,348
Transfers	-	(687,799)	-	423,884	275,007	-	-	-	(11,092)	-	-
Disposals/write-off	-	(40,470)	-	(395,531)	(1,172,630)	-	(2,292,900)	(150,043)	(60,420)	-	(4,111,994)
End of financial year	4,252,583	40,817,509	84,958,672	11,621,343	11,468,977	280,335	75,615,613	1,796,837	7,590,776	-	238,402,645
Carrying amount:											
End of financial year	**4,196,707**	**16,868,594**	**35,419,468**	**6,534,492**	**4,978,851**	**388,941**	**26,942,169**	**1,765,307**	**2,178,250**	**9,481,644**	**108,754,423**

	Leasehold land	Building structures	Wharves, hard-standing and roads	Renovation	Plant, machinery and equipment	Vehicles	Computers	Furniture and fittings	Floating crafts	Capital work-in-progress	Total
	$	$	$	$	$	$	$	$	$	$	$
2018											
Cost											
Beginning of financial year	7,641,956	60,286,096	99,360,632	12,501,607	15,566,625	669,276	83,581,240	3,467,164	9,871,825	12,733,224	305,679,645
Additions	-	295,082	-	13,500	620,051	-	2,270,362	65,900	-	22,798,823	26,063,718
Transfers	677,874	425,986	21,017,508	-	-	-	2,667,199	-	-	(24,788,567)	-
Disposals/write-off	-	(59,400)	-	(14,515)	(1,575,645)	-	(2,756,919)	(387,438)	(4,400)	-	(4,798,317)
End of financial year	8,319,830	60,947,764	120,378,140	12,500,592	14,611,031	669,276	85,761,882	3,145,626	9,867,425	10,743,480	326,945,046
Accumulated depreciation											
Beginning of financial year	3,499,625	38,082,470	72,755,814	9,622,287	11,325,728	146,479	65,795,314	1,585,727	6,900,360	-	209,713,804
Depreciation charge	401,307	1,930,401	5,664,637	1,017,664	1,206,774	66,928	7,210,256	350,537	501,310	-	18,349,814
Disposals/write-off	-	(59,400)	-	(7,504)	(1,088,032)	-	(2,707,549)	(336,442)	(4,400)	-	(4,203,327)
End of financial year	3,900,932	39,953,471	78,420,451	10,632,447	11,444,470	213,407	70,298,021	1,599,822	7,397,270	-	223,860,291
Carrying amount:											
End of financial year	**4,418,898**	**20,994,293**	**41,957,689**	**1,868,145**	**3,166,561**	**455,869**	**15,463,861**	**1,545,804**	**2,470,155**	**10,743,480**	**103,084,755**

During the financial year ended 31 December 2019, certain property, plant and equipment were reclassified within categories for better reflection of the nature of these assets. These reclassifications have no impact on the total cost and accumulated depreciation reported for the financial year ended 31 December 2018.

5. Right-of-use assets

The Authority leases a number of building structures, plant, machinery and equipment and floating crafts. The average lease term is 4 years.

	Building structures	Plant, machinery and equipment	Floating crafts	Total
	$	$	$	$
2019				
Cost				
Beginning of financial year	5,114,505	-	1,509,124	6,623,629
Additions	147,113	36,168	-	183,281
End of financial year	5,261,618	36,168	1,509,124	6,806,910
Accumulated depreciation				
Beginning of financial year	-	-	-	-
Depreciation charge	2,109,884	7,033	377,281	2,494,198
End of financial year	2,109,884	7,033	377,281	2,494,198
Carrying amount:				
End of financial year	**3,151,734**	**29,135**	**1,131,843**	**4,312,712**

During the financial year, the expired contracts for building structures and plant, machinery and equipment were replaced by new leases for similar underlying assets. This resulted in additions to right-of-use assets of $183,281 in 2019.

6. Capital work-in-progress

Capital work-in-progress relates mainly to the cost of computer systems and maritime and port projects under development. Additions during the year amounted to $4,930,677 (2018: $22,798,823).

7. Investments in subsidiary and associated company

(a) Subsidiary

	2019	2018
	$	$
Cost of investment		
At beginning and end of financial year	**2**	2

Details of the subsidiary are as follows:

Name of subsidiary	Country of incorporation	Effective equity held by the Authority	
		2019	2018
		%	%
MPA Venture Pte. Ltd.	Singapore	**100**	100

The principal activity of the subsidiary is to act as a holding company to own jointly intellectual properties and manage investments in maritime technology start-ups and companies and joint ventures with partners.

7. Investments in subsidiary and associated company (continued)

(b) Associated company

(i) Singapore Maritime Institute

In January 2011, the Authority, together with Agency for Science, Technology and Research ("A*STAR"), incorporated Singapore Maritime Institute ("SMI"), a company limited by guarantee. The principal activity of SMI is to develop strategies and programmes related to the academic, policy and research and development aspects of the maritime industry. As at 31 December 2019, the Authority had contributed a total amount of $55,650,633 (2018: $47,450,633) of grants to SMI (including unutilised amount of $3,944,364 (2018: $916,309).

8. Financial assets

	2019	2018
	$	$
Non-current investments		
Classified as Fair Value through Profit or Loss:		
- Quoted equity securities managed by fund managers	**217,404,602**	161,179,787
- Quoted debt securities managed by fund managers		
- Government bonds	**209,302,314**	249,832,045
- Corporate Bonds	**188,160,912**	128,177,111
	614,867,828	539,188,943

The Authority manages its holding of investments in quoted equity securities on a portfolio level with the objective of ensuring long term growth of its portfolio. The objective is not to collect contractual cash flows, nor is it to collect contractual cash flows and by selling these securities. These securities have no fixed maturity or coupon rate. The fair values of these securities are based on closing quoted market prices on the last market day of the financial year.

The investment in quoted debt securities are held by the Authority for trading purposes with the objective of ensuring long term growth of its portfolio. The fair values of these securities are based on closing quoted market prices on the last market day of the financial year.

Investment income, amounting to $70,824,010 (2018: loss of $24,613,616) have been included in income or expenditure for the financial year as part of "net other operating surplus/(deficit)" in note 22.

9. Trade receivables

	2019	2018
	$	$
Trade receivables	**50,300,945**	45,370,833
Less: Loss allowance	**(85,424)**	(33,816)
Trade receivables - net	**50,215,521**	45,337,017

The Authority's exposure to credit risk arises through its trade receivables. Due to the nature of the Authority's business, credit risk is not concentrated in any specific geographical region but concentrated in many shipping companies exposed to business cyclical fluctuations.

Trade receivables are mainly denominated in Singapore Dollar, which is the Authority's functional currency.

Impairment losses

The average credit period on sale of goods is 30 days (2018: 30 days).

The loss allowance on trade receivables has been measured at an amount equal to lifetime expected credit losses. In addition, trade receivable is written off when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery.

The following tables detail the risk profile of trade receivables from contracts with customers based on the Authority's provision matrix for 2019, as well as the analysis of trade receivables for 2018. As the Authority's historical credit loss experience show significantly different loss patterns for different customer segments (including normal and low risk type), the provision for loss allowance based on past due status is further distinguished between the Authority's customer segment of different risk type.

	Normal risk type customers			
	ECL rate	Estimated total gross carrying amount at default	Lifetime ECL	Total
		$	$	$
2019				
Current	-	43,740,714	-	43,740,714
1 - 30 days	0.19%	157,553	(303)	157,250
31 - 60 days	2.22%	533,193	(11,829)	521,364
61 - 90 days	7.90%	349,109	(27,582)	321,527
> 90 days	10.05%	454,774	(45,710)	409,064
Total		**45,235,343**	**(85,424)**	**45,149,919**

9. Trade receivables (continued)

	Low risk type customers			
	ECL rate	Estimated total gross carrying amount at default	Lifetime ECL	Total
		$	$	$
2019				
Current	-	111,562	-	111,562
1 - 30 days	-	-	-	-
31 - 60 days	-	85,895	-	85,895
61 - 90 days	-	4,319	-	4,319
> 90 days	-	4,863,826	-	4,863,826
Total		**5,065,602**	**-**	**5,065,602**

	Normal risk type customers			
	ECL rate	Estimated total gross carrying amount at default	Lifetime ECL	Total
		$	$	$
2018				
Current	-	43,537,319	-	43,537,319
1 - 30 days	-	163,506	-	163,506
31 - 60 days	0.8%	42,181	(325)	41,856
61 - 90 days	4.6%	16,231	(746)	15,485
> 90 days	17.8%	183,506	(32,745)	150,761
Total		43,942,743	(33,816)	43,908,927

	Low risk type customers			
	ECL rate	Estimated total gross carrying amount at default	Lifetime ECL	Total
		$	$	$
2018				
Current	-	-	-	-
1 - 30 days	-	-	-	-
31 - 60 days	-	57,224	-	57,224
61 - 90 days	-	1,333,280	-	1,333,280
> 90 days	-	37,586	-	37,586
Total		1,428,090	-	1,428,090

9. Trade receivables (continued)

The movements in credit loss allowance are as follows:

	2019	2018
	$	$
Beginning of financial year	**33,816**	359,298
Loss allowance recognised in income or expenditure during the year on:		
- Asset originated	**85,424**	33,816
- Reversal of unutilised amounts	**(33,816)**	(240,688)
	51,608	(206,872)
Receivables written off as uncollectible	**-**	(118,610)
End of financial year	**85,424**	33,816

Based on historical default rate, the Authority believes that, apart from the above, no impairment allowance is necessary in respect of other trade receivables outstanding at the balance sheet date.

10. Deposits, prepayments and other receivables

	2019	2018
	$	$
Deposits	**656,946**	526,891
Prepayments	**1,641,500**	1,144,144
Other receivables	**4,543,620**	8,740,267
Amount due from associate & trust funds (non-trade)	**4,212,719**	916,459
	8,756,339	9,656,726
Interest receivable	**5,312,576**	4,413,105
	16,367,361	15,740,866

Other receivables mainly comprise dividends receivable, receivables on sale of financial instruments and derivative assets.

As at the balance sheet date, other receivables and accrued interest receivable include the following items managed by fund managers:

	2019	2018
	$	$
Interest receivable	**2,842,238**	3,099,310
Receivables on sale of financial instruments	**140,538**	2,956,234
Forward foreign exchange purchases (net)	**3,602,924**	4,171,110
Other receivables (mainly dividend receivables and withholding tax receivables)	**401,739**	411,897
	6,987,439	10,638,551

The Authority has not made any allowance for ECL on the financial assets as the Authority is of the view that these are recoverable.

11. Cash and cash equivalents

	2019	2018
	$	$
Cash at bank and on hand	**33,095,406**	98,696,027
Placement with Accountant-General's Department	**735,608,159**	610,942,915
- Statutory Board Approved Funds ("SBAF")	**489,257,187**	522,467,770
- Centralised Liquidity Management Framework ("CLMF")	**246,350,972**	88,475,145
Short-term bills and notes	**97,318,150**	77,088,373
Fixed deposits	**-**	1,051,690
	866,021,715	787,779,005

For the purpose of presenting the consolidated statement of cash flows, cash and cash equivalents comprise the following:

	2019	2018
	$	$
Cash and bank balances (as above)	**866,021,715**	787,779,005
Less: Cash and cash equivalents managed by fund managers	**(126,132,817)**	(170,184,496)
Less: Placement with SBAF	**(489,257,187)**	(522,467,770)
Cash and cash equivalents per consolidated statement of cash flows	**250,631,711**	95,126,739

The Authority's cash and cash equivalents (excluding those managed by fund managers) are mainly denominated in Singapore Dollar, which is the Authority's functional currency.

Placement with the Accountant-General's Department comprise:

(i) $246,350,972 (2018: $88,475,145) which is centrally managed by the Accountant-General's Department under the CLMF, as set out in the Accountant-General's Circular No. 4/2009 Centralised Liquidity Management for Statutory Boards and Ministries, and

(ii) Industry funds of $489,257,187 (2018: $522,467,770) which is placed under the SBAF and is subject to restrictions.

As at the balance sheet date, cash and cash equivalents include the following managed by fund managers:

	2019	2018
	$	$
Cash at bank and on hand	**28,814,667**	92,044,433
Short-term bills and notes	**97,318,150**	77,088,373
Fixed deposits	**-**	1,051,690
	126,132,817	170,184,496

11. Cash and cash equivalents (continued)

The effective interest rates of fixed deposits with the Accountant-General's Department under the CLMF vary from 1.86% to 2.13% (2018: 1.22% to 1.89%) per annum ("p.a."). The maturity of CLM fixed deposits are from 1 day to 1.5 years (2018: from 1 day to 1.5 years). It is highly liquid that are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value.

The effective interest rates of cash and cash equivalents managed by fund managers are as follows:

	2019	2018
	% p.a.	% p.a.
Commercial paper	**(0.94) to (0.83)**	1.85 to 3.14
Short-term bills and notes	**(0.37) to 2.07**	(0.95) to 2.40
Fixed deposits	**-**	1.82

12. Establishment account

The establishment account comprises the net book value of assets transferred to the Authority from the former National Maritime Board, the Marine Department and the regulatory departments of the Port of Singapore Authority.

Capital management

The Authority defines "capital" to include establishment account and reserves. The Board's policy is to maintain a strong capital base to safeguard the ability to meet the long-term development needs of the Authority. The Board of Directors monitors the "Operating Surplus" and "Net Other Operating Surplus/(Deficit)" on a regular basis. The Board monitors the major capital expenditure which is strategic in nature and may draw on reserves.

There were no changes in the capital management approach during the year.

The Authority is not subject to externally imposed capital requirements.

13. Equity financing account

The Equity financing account refers to equity injections by the Minister for Finance ("MOF") in its capacity as shareholder under the Capital Management Framework for statutory boards, implemented with effect from 1 September 2004.

14. Employment benefits

	2019	2018
	$	$
Beginning of financial year	**422,377**	422,377
Provision made	**16,215**	11,408
Provision utilised	**(16,215)**	(11,408)
End of financial year	**422,377**	422,377

The Authority operates an unfunded employment benefit plan for a limited pool of employees under the provisions of the Pensions Act (Cap. 225). Benefits are payable based on the last drawn salary of the employees and the number of years of service with the Authority.

15. Deferred capital grant

	2019	2018
	$	$
Beginning of financial year	**17,665,353**	19,114,704
Amortisation to income	**(1,261,950)**	(1,449,351)
End of financial year	**16,403,403**	17,665,353

The above represents the unamortised portion of Government grant received in connection with specific property, plant and equipment acquired by the Authority.

16. Lease liabilities

	2019
	$
Maturity Analysis:	
Year 1	2,388,309
Year 2	844,038
Year 3	803,370
Year 4	336,319
Year 5	116,793
Year 6 onwards	128,919
	4,617,748
Less: Unearned interest	(219,299)
	4,398,449
Analysed as:	
Current	2,282,953
Non-current	2,115,496
	4,398,449

The Authority does not face significant liquidity risk with regard to its lease liabilities. Lease liabilities are monitored within the Authority's accounting function.

17. Trade and other payables

	2019	2018
	$	$
Trade payables	**5,376,784**	4,424,411
Payables on purchase of financial instruments	**1,344,019**	49,273
Accrued capital expenditure	**11,086,417**	6,480,697
Accrued operating expenses	**25,062,315**	25,371,770
Other payables	**4,703,891**	4,606,328
	47,573,426	40,932,479

Trade payables are mainly denominated in Singapore Dollar, which is the Authority's functional currency. Payables on purchase of financial instruments, managed by fund managers, are mainly denominated in Singapore Dollar.

Accrued operating expenses include accrual for performance bonus and group bonus of $12,138,694 (2018: $11,912,100) and accrued administrative fee payable to the fund managers and custodian bank amounting to $708,056 (2018: $797,577).

The following are the expected contractual undiscounted cash outflows of the financial liabilities, including interest payments and excluding the impact of netting agreements:

	2019	2018
	$	$
Undiscounted cash flows within 1 year		
Non-derivative financial liabilities		
Trade and other payables	**(46,229,407)**	(40,883,206)

18. Advances, deposits and unearned income

	2019	2018
	$	$
Advances and deposits	**5,638,393**	5,147,743
Unearned operating lease income [Note (a)]	**6,180,614**	4,481,025
Unearned annual port dues and Maritime Welfare Fee [Note (b)]	**1,419,097**	1,606,099
	13,238,104	11,234,867

(a) Unearned operating lease income mainly relates to sub-lease of properties to third party for a period of 7 to 8 years (2018: 9 years), of which payments were received in advance.

(b) Unearned annual port dues and Maritime Welfare Fee relate to specific customers under annual and 6-months port dues schemes, and the advance payments of Maritime Welfare Fee. These customers, whose ships that call frequently at the port are allowed to pay port dues on an annual or 6-months basis in advance instead of on a per-call basis.

18. Advances, deposits and unearned income (continued)

Deposits due within 1 year approximate their carrying amount of $5,351,014 (2018: $5,034,071).

19. Operating revenue

	2019	2018
	$	$
Timing of revenue recognition		
SB-FRS 115 revenue		
Over time		
- Dues, licence & permit fees, and agency fee	**191,963,003**	184,100,188
- Annual Administrative Fee	**1,163,948**	1,216,149
- Training	**540,669**	807,347
At a point in time		
- Other marine services	**91,259,206**	97,617,543
- Shipping services	**5,409,171**	4,972,227
Non SB-FRS 115 revenue		
- Rental income	**4,354,813**	4,380,075
- Miscellaneous revenue	**766,740**	377,851
	295,457,550	293,471,380

20. Staff cost

	2019	2018
	$	$
Wages and salaries	**71,195,703**	72,916,207
Employer's contribution to Central Provident Fund	**9,865,287**	9,845,878
Employer's contribution to other defined benefit plans (Note 14)	**16,215**	11,408
Other benefits	**5,529,688**	5,596,109
	86,606,893	88,369,602

21. Other operating expenses

Included in other operating expenses are the following:

	2019	2018
	$	$
Project grants	**13,356,997**	15,514,791
Contribution to Maritime Cluster Fund projects	**13,782,559**	17,695,787
Contribution to International Organisations	**4,990,721**	3,948,750
Transport & travel	**2,164,066**	1,937,321
Rental	**2,579,234**	3,192,939
Property tax	**1,443,810**	1,211,197
Telecommunication	**2,516,089**	2,313,999
Water cost & water sales service fee	**1,397,363**	1,186,132
Utility charges	**1,140,327**	1,020,128
Events & publicity	**8,033,200**	6,772,995
Professional & consultancy fees	**9,333,641**	9,333,177
Interest on lease liabilities	**181,992**	-
Other administrative expenses	**8,903,250**	7,520,835
Other miscellaneous expenses	**1,216,465**	2,126,526
	71,039,714	73,774,577

22. Net other operating surplus/(deficit)

	2019	2018
	$	$
Investment gain/(loss) - net		
Dividend income	**4,610,797**	4,981,248
Interest income	**11,476,186**	9,946,030
Fair value gain/(loss) on investment - realised	**17,464,352**	(2,382,240)
Fair value gain/(loss) on investment - unrealised	**42,713,179**	(28,076,552)
Loss on foreign exchange - net	**(2,121,694)**	(4,929,643)
Other investment expenses	**(3,318,810)**	(4,152,459)
Investment gain/(loss) from funds with fund managers - net	**70,824,010**	(24,613,616)
Other operating surplus - net		
Interest income	**3,691,038**	2,201,017
Gain/(Loss) on foreign exchange - net	**83,979**	(159,937)
Loss on disposal of property, plant and equipment - net	**(198,228)**	(557,394)
Others - net	**124,928**	11,115
Other operating surplus - net	**3,701,717**	1,494,801
	74,525,727	(23,118,815)

23. Contribution to Consolidated Fund

The contribution to the Consolidated Fund is made in accordance with Section 3(a) of the Statutory Corporations (Contributions to Consolidated Fund) Act (Cap. 319A). The contribution is based on 17% (2018: 17%) of the surplus for the year.

	2019	2018
	$	$
Beginning of financial year	**10,683,274**	24,159,334
Amount contributed	**-**	(24,159,334)
Provision for the year	**27,676,304**	10,683,274
End of financial year	**38,359,578**	10,683,274

24. Financial Derivatives at Fair Value

The Authority places its surplus funds with fund managers to manage its investment portfolio under a balanced mandate. These fund managers are given discretion in managing their portfolio, subject to the investment guidelines set out in the fund management agreements.

As part of risk management activities, the fund managers use financial derivatives for hedging purposes. The financial derivatives used include financial futures, swaps and forward foreign exchange contracts.

As at balance sheet date, the notional amounts of the financial derivatives held by the fund managers are as follows:

	2019	2018
	$	$
Notional amounts		
Futures contracts		
- Gross inflow	**54,241,809**	12,959
- Gross outflow	**(28,534,846)**	(11,041,609)
Foreign currency swap and forward contracts		
- Gross inflow	**772,627,082**	911,266,560
- Gross outflow	**(772,637,082)**	(911,266,560)

25. Commitments

(a) Capital commitments

Capital expenditures contracted for at the balance sheet date but not recognised in the financial statements are as follows:

	2019	2018
	$	$
Property, plant and equipment	**10,526,542**	12,957,913

(b) Operating lease commitments - Where the Authority is a lessee:

As at 31 December 2019, the Authority is committed to $2,764,525 for short-term leases.

As at 31 December 2018, the future minimum lease payables under non-cancellable operating leases contracted for but not recognised as liabilities, are as follows:

	2018
	$
Maturity Analysis:	
Not later than one year	13,829,459
Between one and five years	3,350,808
Total	17,180,267

(c) Operating lease commitments - Where the Authority is a lessor:

Operating leases, in which the Authority is the lessor, relates to rental space and buildings owned by the Authority with lease terms of between 2 years to 30 years. The lessee does not have the option to purchase the property at the expiry of the lease period.

Maturity analysis of operating lease payments:

	2019
	$
Maturity Analysis:	
Year 1	2,483,730
Year 2	1,790,788
Year 3	1,324,848
Year 4	940,716
Year 5	940,716
Year 6 onwards	1,862,536
Total	9,343,334

During the year ended 31 December 2019, the Authority recognised $3,558,017 (2018: $3,150,865) of rental income from non-cancellable operating leases.

25. Commitments (continued)

(c) Operating lease commitments - Where the Authority is a lessor (continued)

As at 31 December 2018, the future minimum lease receivables under non-cancellable operating leases contracted for at the balance sheet date but not recognised as receivables, are as follows:

	2018 $
Maturity Analysis:	
Not later than one year	2,387,619
Between one and five years	3,005,674
Later than five years	2,054,581
	7,447,874

26. Financial risk management

Financial risk factors

The Authority's activities expose it to market risk (including currency risk, interest rate risk and price risk), credit risk and liquidity risk.

Risk management is integral to the whole operations of the Authority. The Authority has a system of controls in place to create an acceptable balance between the cost of risks occurring and the cost of managing the risks. The management continually monitors the Authority's risk management process to ensure that an appropriate balance between risk and control is achieved.

Funds with fund managers

In connection with the funds placed with fund managers, the funds placed with fund managers are exposed to a variety of financial risk: credit risk, liquidity risk and market risk (including currency risk, fair value interest rate risk, cash flow interest rate risk and price risk).

The fund managers appointed under the balanced mandate are held responsible in achieving the investment objectives set forth in their respective fund manager agreements entered with the Authority. All income and realised capital gains are to be reinvested by the fund managers unless otherwise instructed by the Authority.

The fund managers' overall risk management programme seeks to maximise the returns derived for the level of risk to which they are exposed and seeks to minimise the potential adverse effects on the fund managers' financial performance.

A significant proportion of the Authority's security investments present a risk of loss of capital. The maximum loss of capital is represented by the carrying values of those security investments.

26. Financial risk management (continued)

Funds with fund managers (continued)

The management of these risks carried out by the fund managers is governed by the mandate set forth in the fund manager agreements approved by the Investment Committee of the Authority. The mandate provides written principles for overall risk management, as well as written policies covering specific areas, such as foreign exchange risk, interest rate risk, credit risk, the use of derivative and non-derivative financial instruments.

(a) Market risk

(i) Currency risk

The Authority invests in financial instruments and enters into transactions denominated in currencies other than its functional currency. Consequently, the Authority is exposed to risks that the exchange rate of its functional currency relative to other foreign currencies may change in a manner that has an adverse effect on the value of that portion of the Authority's assets or liabilities denominated in currencies other than the functional currency.

The financial assets managed by fund managers denominated in currencies other than the Authority's functional currency comprise the following:

	2019	2018
	$	$
British pound sterling	**30,876,757**	21,530,239
Canadian dollar	**41,765,234**	31,323,750
Euro	**55,271,613**	47,112,279
Japanese yen	**31,463,660**	19,219,828
Swiss franc	**9,953,086**	18,403,512
United States dollar	**441,287,377**	337,633,496
Various other foreign currencies	**49,376,128**	63,818,439
	659,993,855	539,041,543

At the balance sheet date, if there is a +/-5% movement in exchange rates relative to the Singapore Dollar, with all other variables held constant, the increase/(decrease) in the fair value of financial assets in income or expenditure would be as follows:

	2019	2018
	$	$
+5% scenario		
Income or expenditure	**32,999,693**	26,952,077
-5% scenario		
Income or expenditure	**(32,999,693)**	(26,952,077)

26. Financial risk management (continued)

(b) Market risk (continued)

(ii) Interest rate risk

Interest rate risk arises from the effects of fluctuations in the prevailing levels of market interest rates on the fair value of financial assets and liabilities and future cash flows. The Authority holds debt securities and derivatives that expose the Authority to fair value interest rate risk.

FVTPL debt securities, managed by fund managers

At the balance sheet date, assuming that all other variables are held constant and no loss event has occurred, a 100 basis point increase/(decrease) in the interest rate would (decrease)/increase the fair values of the financial assets in income or expenditure by the following amounts:

	2019	2018
	$	$
+100 basis point scenario		
Income or expenditure	**(18,023,549)**	(18,295,325)
-100 basis point scenario		
Income or expenditure	**18,023,549**	20,453,593

At the balance sheet date, assuming that all other variables are held constant, a 100 basis point increase/(decrease) in interest rate would increase/(decrease) the interest income of the floating rate debt securities recorded in income or expenditure by the following amounts:

	2019	2018
	$	$
+100 basis point scenario		
Income or expenditure	**18,000**	166,256
-100 basis point scenario		
Income or expenditure	**(18,000)**	(166,256)

26. Financial risk management (continued)

(ii) Interest rate risk (continued)

Derivatives (futures), managed by fund managers

At the balance sheet date, if interest rates had been 100 basis point higher/(lower) with all other variables held constant, the increase/(decrease) in the fair values of the interest rate derivatives in the income or expenditure would be as follows:

	2019	2018
	$	$
+100 basis point scenario		
Income or expenditure	**52,690**	777,463
-100 basis point scenario		
Income or expenditure	**(52,690)**	(819,675)

The effective interest rates at balance sheet date of the debt securities held by the fund managers and the period in which they mature or reprice are as follows:

	2019	2018
	$	$
Fixed rate		
Maturing in less than 1 year	**10,796,661**	35,747,047
Maturing between 1 to 5 years	**181,389,833**	127,972,481
Maturing in more than 5 years	**163,308,809**	176,318,612
Floating rate		
Repricing in less than 3 months	**30,804,787**	37,971,016
Repricing in more than 6 months	**11,163,136**	-
	397,463,226	378,009,156

(iii) Equity price risk

The Authority is exposed to equity price risk. This arises from investments held by the Authority for which prices in the future are uncertain. Where equity securities are denominated in currencies other than the functional currency of the Authority, the price initially expressed in foreign currency and then converted into the functional currency will also fluctuate because of changes in foreign exchange rates. Paragraph (a)(i) “Currency risk” sets out how this component of price risk is managed and measured.

26. Financial risk management (continued)

(iii) Equity price risk (continued)

The Authority's policy to manage price risk is via diversification and selection of securities and other financial instruments within specified limits set by the Investment Committee. The majority of the Authority's equity investments is publicly traded. The overall market position of these equity investments is monitored on a daily basis by the fund managers and is reviewed on a quarterly basis by the members of the Investment Committee. Compliance with the Authority's fund management mandate is reported to the members of the Investment Committee on a quarterly basis.

(iv) Price risk

At the balance sheet date, assuming that all other variables are held constant, a 5% increase/(decrease) in the underlying equity prices would increase/(decrease) the Authority's net surplus for the year by the following amounts:

	2019 $	2018 $
+5% scenario		
Equity securities, managed by fund managers		
Income or expenditure	**10,870,230**	7,209,550
-5% scenario		
Equity securities, managed by fund managers		
Income or expenditure	**(10,870,230)**	(7,209,550)

26. Financial risk management (continued)

(b) Credit risk

The Authority's current credit risk grading framework comprises the following categories:

Category	**Description**	**Basis for recognising expected credit losses (ECL)**
Performing	The counterparty has a low risk of default and does not have any past-due amounts.	12-month ECL
Doubtful	Amount is >30 days past due or there has been a significant increase in credit risk since initial recognition.	Lifetime ECL - not credit-impaired
In default	Amount is >90 days past due or there is evidence indicating the asset is credit-impaired.	Lifetime ECL - credit-impaired
Write-off	There is evidence indicating that the debtor is in severe financial difficulty and the Authority has no realistic prospect of recovery.	Amount is written off

The table below details the credit quality of the Authority's financial assets as well as maximum exposure to credit risk by credit risk rating grades:

	Note	Internal credit rating	12-month or lifetime ECL	Gross carrying amount $	Loss allowance $	Net carrying amount $
2019						
Trade receivable	9	(i)	Lifetime ECL (simplified approach)	50,300,945	85,424	50,215,521
Other receivables	10	Performing	12-month ECL	14,725,861	-	14,725,861
					85,424	

26. Financial risk management (continued)

(b) Credit risk (continued)

	Note	Internal credit rating	12-month or lifetime ECL	Gross carrying amount $	Loss allowance $	Net carrying amount $
2018						
Trade receivable	9	(i)	Lifetime ECL (simplified approach)	45,370,833	33,816	45,337,017
Other receivables	10	Performing	12-month ECL	14,596,722	-	14,596,722
					33,816	

(i) The Authority determines the expected credit losses on these items by using a provision matrix, estimated based on historical credit loss experience based on the past due status of the debtors, adjusted as appropriate to reflect current conditions and estimates of future economic conditions.

The Authority has adopted procedures in extending credit terms to customers and in monitoring its credit risk. The Authority only grants credit to creditworthy counterparties. Cash is held with creditworthy institutions and is subject to immaterial credit loss.

Although the Authority's credit exposure is concentrated mainly in Singapore, it has no significant concentration of credit risk with any single customer or group of customers.

Funds with fund managers

Credit risk is the risk that a counterparty to a financial instrument will fail to discharge an obligation or commitment that it has entered into with the Authority. The fund manager has a credit policy in place and the exposure to credit risk is monitored on an on-going basis.

As at 31 December 2019, the following financial assets were exposed to credit risk: investment in equity and debt securities, receivables on sale of financial instruments, forward foreign exchange purchases, cash and cash equivalents, derivative financial assets and other receivables. The total carrying amount of financial assets exposed to credit risk amounted to $746,644,066 (2018: $719,962,717).

26. Financial risk management (continued)

(b) Credit risk (continued)

The Authority limits its credit risk exposure in respect of investments in debt securities by restricting the fund managers to invest in debt securities that have a sound credit rating from Standard & Poor's and Moody's (at least BBB by the former or Baa2 by the latter, on the lower rating of both in the event of split ratings). Given these credit ratings, management does not expect any counterparty to fail to meet its obligations.

The maximum exposure to credit risk is represented by the carrying amount of each financial asset on the consolidated balance sheet.

(c) Liquidity risk

The Authority monitors its liquidity risk and maintains a level of cash and cash equivalents deemed adequate by management to finance the Authority's operations and to mitigate the effects of fluctuations in cash flows.

Funds with fund managers

The Authority's listed debt and equity securities are considered readily realisable, as they are listed on the major stock exchanges. The fund managers are required to comply with the restrictions and limitations as stipulated in the investment mandate. All transactions carried out by the fund managers are settled daily through the Authority's custodian of the portfolio of investments placed by fund managers.

The fund managers may periodically invest in some debt securities and derivative contracts on behalf of the Authority that are traded over the counter, which are not traded in an organised market and may be illiquid. As a result, the Authority may not be able to liquidate its investments in these instruments at an amount close to their fair value to meet its liquidity requirements or be able to respond to specific events such as the deterioration in the creditworthiness of any particular issuer.

At the balance sheet date, non-derivative financial liabilities held by the Authority are as disclosed in Note 17.

26. Financial risk management (continued)

(d) Fair value measurements

The following presents assets and liabilities measured and carried at fair value and classified by level of the following fair value measurement hierarchy:

(a) quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1);

(b) inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices) (Level 2); and

(c) inputs for the asset or liability that are not based on observable market data (unobservable inputs) (Level 3).

The fair value of financial instruments traded in active markets (the Authority's equity and debt securities managed by fund managers) is based on quoted market prices at the balance sheet date. The quoted market price used for financial assets held by the Authority is the current bid price. These instruments are classified as Level 1.

Derivatives used by fund managers

Futures contracts are marked to market daily using listed market prices with any gains or losses posted to the related variation margin accounts.

The fair value of forward exchange contracts is based on their listed market price and the fair value of swaps is based on quotations from independent third party vendors and sources that apply fair value techniques. These instruments are classified as Level 2.

(e) Financial instruments by category

The carrying amounts of financial assets measured at fair value are disclosed on the face of the balance sheet. The carrying amounts of financial instruments at amortised cost approximate their fair values.

The aggregate carrying amounts of loans and receivables and financial liabilities at amortised cost are as follows:

	2019	2018
	$	$
Loans and receivables	**930,963,097**	847,712,744
Financial liabilities at amortised cost	**57,610,268**	46,080,222

27. Related party transactions

In addition to the information disclosed elsewhere in the financial statements, the following transactions took place between the Authority and related parties at terms agreed between the parties.

(a) Sales of services

	2019	2018
	$	$
Provision of dumping and monitoring services to Statutory Boards	**32,271,997**	37,971,540
Provision of agency and project management services to Ministry	**16,270,728**	23,905,136
Provision of private wharfage services to Statutory Board	**3,640,778**	4,261,053

(b) Key management personnel compensation

Key management personnel of the Authority are those persons having the authority and responsibility for planning, directing and controlling the activities of the Authority. These key management personnel comprise the Board of Members and Executive Management Team of the Authority.

Key management personnel compensation is as follows:

	2019	2018
	$	$
Salary and short-term employee benefits	**5,454,311**	5,929,503
CPF contributions	**285,767**	277,742
Directors' fees	**205,542**	194,075
	5,945,620	6,401,320

28. Funds managed/held on behalf of others - Funds held in trust

Funds held in trust and managed by the Authority comprise the following:

	2019	2018
	$	$
Singapore Stranded Seafarers' Fund	**340,627**	339,539
Agency funds held in trust of Ministry of Transport	**6,751,976**	3,357,083
	7,092,603	3,696,622

28. Funds managed/held on behalf of others - Funds held in trust (continued)

Singapore Stranded Seafarers' Fund ("SSSF")

(a) The SSSF was set up in September 1999 (following the Authority's Board approval for its creation at an earlier board meeting in July 1999). The SSSF is managed by a Committee made up of representatives from the Authority and the unions, namely Singapore Maritime Officers' Union and Singapore Organisation of Seamen.

The Fund is humanitarian in nature. It shall be used only as a last resort when it becomes evidently clear that the ship owners concerned are no longer able to bear responsibility towards their ship crew, e.g. due to insolvency. It is used mainly to buy fuel (i.e. to run the ship's generators) and provide food and portable water to sustain the stranded ship crew onboard Singapore-registered ships stranded in Singapore or overseas, until such time they are repatriated or the dispute is settled.

(b) The assets and liabilities of the SSSF as at 31 December are as follows:

	2019	2018
	$	$
Accumulated fund	**340,627**	339,539
Current assets		
Interest receivable	**642**	643
Cash and cash equivalents	**339,985**	338,896
	340,627	339,539

(c) The results of the SSSF for the year ended 31 December are as follows:

	2019	2018
	$	$
Interest income	**1,088**	1,089
Surplus for the year	**1,088**	1,089
Accumulated fund as at 1 January	**339,539**	338,450
Accumulated fund as at 31 December	**340,627**	339,539

28. Funds managed/held on behalf of others - Funds held in trust (continued)

Agency funds held in trust of Ministry of Transport

(a) On 11 March 2005, the Authority was appointed by Ministry of Transport ("MOT") as its managing agent in connection with the proposed land reclamation at Pasir Panjang Terminal Phases 3 and 4 and Tuas Port.

(b) The assets and liabilities of the agency funds held in trust as at 31 December are as follows:

	2019	2018
	$	$
Accumulated fund	**6,751,976**	3,357,083
Current assets		
Cash at bank	**7,078,041**	2,057,060
Amount due from various Government bodies	**57**	7
GST receivable	**12,056,063**	12,271,249
	19,134,161	14,328,316
Current liabilities		
GST payable	**(12,324,417)**	(10,945,976)
Amount due to various Government bodies	**(57,766)**	(25,257)
Other payable	**(2)**	-
Net assets	**6,751,976**	3,357,083

(c) The results of the agency funds held in trust for the year ended 31 December are as follows:

	2019	2018
	$	$
Grants received	**965,616,376**	823,981,979
Interest income	**792,947**	245,662
	966,409,323	824,227,641
Grants disbursed	**(947,212,898)**	(826,109,527)
Agency fees paid/payable	**(15,801,532)**	(23,449,093)
Surplus/(Deficit) for the year	**3,394,893**	(25,330,979)
Accumulated fund as at 1 January	**3,357,083**	28,688,062
Accumulated fund as at 31 December	**6,751,976**	3,357,083

28. Event after the reporting period

Subsequent to the end of the financial year, and as at the date these financial statements are authorised for issue, the value of investment portfolio managed by fund managers has reduced by 3% largely from unrealised losses amidst the global stock market sell-off triggered by market uncertainty from the global spread of COVID-19 (Coronavirus Disease 2019)."

29. Authorisation of financial statements

These financial statements were authorised for issue by the Board of Members on 29 March 2020.